D 63/6/989

FACTS ON THE NATIONAL DISASTER MEDICAL SYSTEM

National Disaster Medical System
Parklawn Building, Room 4-81
5600 Fishers Lane
Rockville, MD 20857
(301) 443-4893

March 1989

HE 20.2:

NATIONAL DISASTER MEDICAL SYSTEM

COORDINATING CENTERS

NDMS AREAS

Birmingham, AL
Mobile, AL
Phoenix, AZ
Tuscon, AZ
Little Rock, AK
Los Angeles/Long Beach, CA
Oakland, CA
Orange County, CA
Riverside County, CA
Sacramento, CA
San Bernardino County, CA
San Diego, CA
San Francisco, CA
Boulder, CO
Denver, CO
Groton, CT
Hartford, CT
New Haven, CT
Wilmington, DE
Washington, D.C. Metro Area
Ft. Lauderdale, FL
Jacksonville, FL
Miami, FL
Orlando, FL
Palm Beach, FL
Pensacola, FL
Tampa/St. Petersburg, FL
Atlanta, GA
Augusta, GA
Honolulu, HI
Chicago, IL
Indianapolis, IN
Des Moines, IA
Leavenworth, KS
Topeka, KS
Wichita, KS
Lexington, KY
Louisville, KY
New Orleans, LA
Shreveport, LA
Baltimore, MD
Boston, MA
Holyoke, MA
Springfield, MA
Detroit, MI
Flint, MI
Grand Rapids, MI
Minneapolis/St. Paul, MN
Biloxi, MS
Gulfport, MS
Jackson, MS
Kansas City, MO
St. Louis, MO
Omaha, NE
Northern New Jersey
Central/Southern New Jersey
Albuquerque, NM
Albany, NY
Bronx, NY
Brooklyn, NY
Buffalo, NY
Manhattan, NY
Nassau County, NY
Newsburgh, NY
Poughkeepsie, NY
Rochester, NY
Schenectady, NY
Suffolk County, NY
Westchester County, NY
Charlotte, NC
Gastonia, NC
Raleigh-Durham, NC
Akron, OH
Cincinnati, OH
Cleveland, OH
Columbus, OH
Dayton, OH
Toledo, OH
Oklahoma City, OK
Portland, OR
Philadelphia, PA
Pittsburgh, PA
Providence, RI
Charleston, SC
Columbia, SC
Greenville/Spartanburg, SC
Davidson County, TN
Knoxville, TN
Memphis, TN
Nahville, TN
Austin, TX
Dallas-Ft. Worth, TX
El Paso, TX
Houston, TX
San Antonio, TX
Salt Lake City, UT
Ogden, UT
Norfolk/Virginia Beach, VA
Northern Virginia
Portsmouth/Hampton, VA
Richmond, VA
Everett, WA
Seattle, WA
Tacoma, WA
Milwaukee, WI
Wheeling, WV

Why Create A National Disaster Medical System?

Earthquakes, tidal waves, volcanic eruptions, storms, fires, industrial accidents, and many other disasters have struck the United States. These have not caused the massive casualties of similar incidents in other parts of the world.

The United States has never experienced a great disaster comparable in magnitude to the 1988 Armenian earthquake, the 1984 Bhopal India toxic gas release or the 1985 Mexico City earthquake. But the United States is still susceptible to the kinds of catastrophic accidents that occur elsewhere. For example, the 1857 earthquake (Richter magnitude 8+) that destroyed Fort Tejon, California, approximately 100 miles northwest of the center of Los Angeles, caused negligible casualties. Because the area has since become densely populated, authorities estimate that a modern recurrence could cause from 3,000 to 14,000 deaths and from 12,000 to 55,000 injuries requiring hospital treatment. Such an event in Los Angeles could cause 20,000 deaths and close to 100,000 serious injuries. There is also substantial risk of an earthquake in the Central United States, which could devastate Memphis and St. Louis. No portion of the U.S. is free of risk from a major earthquake.

No single city or State can be fully prepared for such catastrophic events. Although many cities of the Nation are well provided with health resources, those resources would be overwhelmed by a sudden surge of disaster injuries proportional to the population. The health resources of most States would be similarly overtaxed. A system for dealing with disaster casualties must therefore provide for "mutual aid" among all parts of the Nation, and must be able to handle numbers of patients which might result from a catastrophic incident.

In addition, in the event of a conventional overseas war involving American forces, the military medical system could be overwhelmed by casualties returning to the US for hospitalization. To meet the need, military casualties would need to be distributed among Department of Defense (DoD), Department of Veterans Affairs (VA), and US non-Federal hospitals for treatment.

The National Disaster Medical System (NDMS) is a single system designed to care for large numbers of casualties from either a domestic disaster or overseas war.

Facts on the National Disaster Medical System

The NDMS is a cooperative effort of the Department of Health and Human Services (HHS), the Department of Defense (DoD), the Department of Veterans Affairs (VA), and the Federal Emergency Management Agency (FEMA), State and local governments, and the private sector. NDMS includes Disaster Medical Assistance Teams (DMATs) and Clearing-Staging Units (CSUs) at the disaster site or receiving location, a medical evacuation system, and more than 100,000 pre-committed non-Federal acute care hospital beds in more than 1500 hospitals throughout the country. NDMS does not replace State and local disaster planning efforts, rather supplements and assists where State and local medical resources are overwhelmed and Federal assistance is required.

Background

Rising medical costs have made it impossible for the Department of Defense (DoD), and the Department of Veterans Affairs (VA) to maintain a system of definitive care for mass casualties of an overseas conventional conflict. Thus, in 1980, the Department of Defense (DoD) established the Civilian-Military Contingency Hospital System (CMCHS), under which non-Federal hospitals voluntarily pre-committed beds to backup the DoD-VA hospital system. Based on this experience, Federal military and civilian planners believed that a system could be developed for medical response to domestic disasters as well as overseas armed conflicts.

In December, 1981, the President established the Emergency Mobilization Preparedness Board (EMPB) and charged it to develop national policy and programs to improve emergency preparedness. Health program development was delegated to the Board's Principal Working Group on Health (PWGH), chaired by the Assistant Secretary for Health, HHS. Major members of the PWGH included DoD, the Health Care Financing Administration (HCFA), the VA, and FEMA. The PWGH developed the National Disaster Medical System in response to the President's mandate.

The PWGH has since been replaced by the NDMS Senior Policy Group (SPG). The SPG is chaired by the Assistant Secretary for Health, HHS, and includes the Assistant Secretary of Defense (Health Affairs), DoD; the Director of the Federal Emergency Management Agency, and the Secretary of Veterans Affairs, VA. This interagency group determines overall policy and program goals for

the NDMS and other aspects of health and medical preparedness, under the guidance of the National Security Council (NSC) and the Domestic Policy Council (DPC).

The National Disaster Medical System

The NDMS is designed to fulfill three system objectives:

1. **Medical assistance** to a disaster area in the form of Disaster Medical Assistance Teams (DMATs) and Clearing-Staging Units (CSUs), and medical supplies and equipment.

2. **Evacuate patients** that cannot be cared for locally to designated locations throughout the United States.

3. **Hospitalization** in a national network of medical care facilities that have agreed to accept patients.

The NDMS is designed to care for as many as 100,000 victims of any incident that exceeds the medical care capability of an affected State, region, or Federal health care system. It may be used in a variety of emergency events, such as an earthquake, an industrial disaster, a refugee influx, or for military casualties evacuated to the U.S. The NDMS is not designed to cope with nuclear war casualties.

NDMS Areas

The NDMS currently includes 106 metropolitan areas of the Nation. Most areas in the system have:

Available beds. A minimum of 2,500 acute care hospital beds in facilities offering a full range of general medical and surgical services.

Coordinating Center. A Federal or non-Federal institution which recruits and coordinates non-Federal hospital participation, and links hospitals with local transportation, communication and other resources. The NDMS Coordinating Center establishes and maintains system coordination and patient administration procedures in the geographic area for which it has responsibility. There are currently 74 NDMS Coordinating Centers.

Air access. An airport capable of accommodating aeromedical evacuation aircraft.

The map on Page shows the locations of NDMS Coordinating Centers. Also on Page is a listing of areas currently participating in the System. Additional areas may be organized in the future.

Medical Facilities

Hospitals accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) may participate voluntarily in the program. A hospital joins the NDMS by executing a Memorandum of Understanding (MoU) which projects minimum and maximum numbers of beds it could make available during System activation. At time of activation, an NDMS hospital may actually provide fewer or more beds than it commits in the MoU, depending on bed availability at that time. The MoU does not create any legal obligation to provide beds to the NDMS.

NDMS hospitals also agree to participate in annual training and exercises. Since the JCAHO requires that hospitals conduct at least one annual patient movement exercise, NDMS exercises are a method of helping to satisfy that requirement.

Disaster Medical Assistance Teams

NDMS is fostering the development of volunteer teams, called Disaster Medical Assistance Teams (DMATs) to provide austere medical care in a disaster area or medical services at transfer points and reception sites associated with patient evacuation. Participating hospitals, volunteer agencies or health and medical organizations can form DMATs from interested professional and para-professional medical personnel. Each DMAT will consist of approximately 30 persons. Three DMATs may be linked into a Clearing Staging Unit (CSU) which could be deployed to the disaster site.

DMATs and CSUs must be pre-organized and trained in order to function. They must be trained, skilled, equipped, and capable of mobilization and deployment within a few hours. NDMS proposes several team models that offer a simple template for organizing, recruiting, training, and equipping teams. DMAT/CSU deployment and logistical support in an emergency will be eased by standardization in numbers, equipment, and patient care capability. DMATs/CSUs have also proven to be useful adjuncts in local community disaster response.

Logistic Support

Principal logistic support functions include finance, transportation, supplies and equipment, and communications. These components are under development at the Federal level.

Finance. NDMS will compensate participating hospitals and medical care providers. Participating NDMS

hospitals, physicians, and other providers of care and services will be reimbursed on the basis of billed charges.

Transportation. Arrangements and procedures will assure rapid movement of incoming medical teams, supplies and equipment and evacuation of patients to definitive medical care. Military and civilian aircraft will be utilized.

Supplies and Equipment. Most durable equipment is drawn from available surplus and excess items from government and non-government sources. Consumable medical supplies from Federal depots will be ordered and shipped to disaster areas upon System activation, minimizing storage and perishability problems.

Communications. Communications arrangements will use Federal and non-Federal resources under provisions of plans developed by the National Communications System (NCS).

Endorsements

Many major national organizations have endorsed the NDMS including: the American Hospital Association (AHA), the American Medical Association (AMA), the American College of Emergency Physicians (ACEP), the American College of Healthcare Executives (ACHE), and the National Association of State Emergency Medical Service Directors (NASEMSD). In addition, key State and local organizations have endorsed the NDMS.

NDMS Activation and Coordination

In the event of a major disaster, the Governor of an affected State may request Federal assistance under the authority of the Disaster Relief Act of 1988, PL 100-707, as amended, and the President may make a declaration of a major disaster or an emergency. The Presidential declaration triggers a series of Federal responses coordinated by FEMA. These may include the activation of NDMS, when appropriate.

The NDMS may also be activated by the Assistant Secretary for Health, HHS, upon the request of a State Health Officer in situations not involving a Presidential declaration, under authority provided by the Public Health Service Act.

In the event of a national security emergency, the Secretary of Defense, (DoD), would have authority to activate the system.

Upon system activation, the National Disaster Medical System Operations Support Center (NDMSOSC) will become operational to coordinate Federal health and medical responses to the disaster. The NDMSOSC includes representatives of HHS/PHS, DoD, FEMA, VA, the American Red Cross, and other Federal and private agencies concerned with medical services and medical logistics. The NDMSOSC will work in cooperation with the Federal Catastrophic Disaster Response Group (CDRG), State emergency medical authorities, and the Federal Coordination Officer (FCO) responsible for overall management of Federal response to the disaster.

Benefits of NDMS Participation

Although the NDMS is designed to respond to a major national disaster, there are immediate regional benefits to States and local communities that participate in the system. Once organized and trained, DMATs/CSUs and other elements of the NDMS could be available to response to local mass casualty incidents or on an intra-State basis. Thus, the NDMS will not only enhance nationwide medical response capability, it will also improve the ability of participating States and localities to respond to disasters within their own jurisdictions.

Questions Frequently Asked About NDMS

- **What is NDMS?**

  The National Disaster Medical System is a Federally coordinated initiative to augment the Nation's emergency medical response capability. The overall purpose of NDMS is to establish a single national medical response capability for:

  - assisting State and local authorities in dealing with the medical and health effects of major peacetime disasters; and
  - providing support to the military and VA medical systems in caring for casualties evacuated back to the U.S. from overseas armed conflicts.

  NDMS has three major components:

  1. Disaster Medical Assistance Teams (DMATs) and Clearing-Staging Units (CSUs) with necessary supplies and equipment which will be dispatched to a disaster site within the United States from the country's major metropolitan areas. DMATs/CSUs may also provide NDMS patient reception services at their home locations.

2. An evacuation capability for movement of patients from a disaster area to locations where definitive medical care can be provided.

3. A voluntary hospital network which will provide definitive care.

In a domestic disaster, NDMS can be activated by FEMA or HHS when State resources have been overwhelmed and the State has requested Federal assistance. The Department of Defense (DoD) will activate the system for providing care for casualties of an overseas armed conflict.

★ **Will NDMS provide a way to cope with the medical needs of a nuclear attack on the United States?**

No. NDMS does not provide the capability to manage casualties of a nuclear attack. There is no planned medical system that could cope with the large number of casualties generated by a nuclear war.

★ **What is a Disaster Medical Assistance Team?**

A Disaster Medical Assistance Team (DMAT) is composed of about 30 volunteers which include physicians, nurses, technical staff and other health professionals as well as support staff. Team members will be trained to respond to a disaster as an organized group. DMAT capability includes;

- ★ Triage and stabilization of patients at a disaster site and provision of austere medical services at transfer points during transport to definitive care.

When teams are dispatched to the disaster site, they will bring necessary medical supplies and equipment, and also food, water, and other necessary supplies.

★ **What is a Clearing-Staging Unit?**

A Clearing-Staging Unit (CSU) is composed of three DMATs, plus command and logistic support personnel. The CSU, because of its larger size and enhanced command and support staff, provides increased capability and self-sufficiency for assisting in large scale operations over a longer period of time.

★ **How will the Teams train?**

In each NDMS area, DMATs and CSUs will be organized by a sponsor, usually a major medical

center, health department, emergency or disaste
organization. These organizations will provide sho
training classes (average 3 days annually) and exe
cises for medical response. These exercises will b
part of community disaster response exercises.

★ **What is the hospital's role in NDMS?**

Accredited hospitals, usually over 100 beds in siz
and located in large U.S. metropolitan areas, ar
encouraged to enter into a voluntary agreement wit
NDMS. Hospitals agree to commit a number of the
acute care beds, subject to availability, for NDM
patients. Because this is a completely voluntary pro
gram, hospitals may, upon an activation of the Sys
tem, provide more or fewer beds than the numbe
committed in the agreement.

Hospitals which admit NDMS patients will be reim
bursed by the Federal government for bills a
charged. NDMS will be the payor of first resort. I
the case of peacetime disaster victims, the Federa
government will attempt to recover payment fron
patients' medical insurance plans.

★ **How will patients be evacuated, received an
transported to the participating NDMS hospitals**

At the disaster site, patients will be stabilized by
Disaster Medical Assistance Team (DMAT) and/o
Clearing-Staging Unit (CSU) for transport. In mos
cases, patients will be evacuated by air.

At the airport of the NDMS reception area, patient
will be met by a local DMAT which will sort, assess
and match those patients to participating hospitals
according to procedures developed by local author
ties and the local area's NDMS Coordinating Center

Patients will be transported to participating hospital
using locally organized ground and helicopter (if avai
able) transport.

★ **What is a NDMS Coordinating Center?**

Currently, there are 106 metropolitan areas that serv
as potential "hosts" to NDMS patients. For each
NDMS area, there is a Coordinating Center, which
is either a Federal hospital or a local EMS agency
The Coordinating Center has three major functions

1. Recruit and maintain local non-Federal hospi
tal participation in the NDMS.

2. Before a disaster, assist sponsors of DMATs and CSUs, participating hospitals and other local authorities in developing patient reception, transportation, and communication plans.

3. During System activation, coordinate the reception and distribution of patients coming into the area.

★ **How does NDMS relate to the Civilian-Military Contingency Hospital System?**

The Civilian-Military Contingency Hospital System (CMCHS), which supplemented the DoD—VA hospital system, no longer exists. NDMS has incorporated prior CMCHS agreements. Hence, there is now one system to support States overwhelmed by a major peacetime disaster and to provide backup to the military and VA for utilization of non-Federal hospitals for care of casualties of an overseas conventional conflict. While the hospital system will operate in the same way in both instances, Disaster Medical Assistance Teams (DMATs) and Clearing-Staging Units (CSUs) will only perform casualty reception services within the U.S. during a military activation, and will not be dispatched to the location of the conflict.

★ **Where can more information on the NDMS be obtained?**

Additional information is available from:

National Disaster Medical System
Room 4-81, Parklawn Building
5600 Fishers Lane
Rockville, Maryland 20857
Telephone (301) 443-4893